

### REMARKS

Claims 1-12 are pending. By this amendment claims 1, 2, 5, 7-10 and 12 have been amended to merely clarify the recited subject matter. These amendments were not presented earlier because they are made based on comments provided in the Final Rejection and subsequent Advisory Action. Reconsideration in view of the above amendments and following remarks is respectfully requested.

The Office Action rejected claims 1-5, 7-8, and 10-11 under 35 U.S.C. § 102(b) as being anticipated by Sanmugam (WO 96/15643). Applicant respectfully traverses the rejection because Sanmugam fails to teach or suggest all the features of the rejected claims. In particular, Sanmugam fails to teach or suggest, *inter alia*, “starting tracing which comprises sending the tracer a copy of a signalling message in response to the reception or transmission of a signalling message related to the subscriber to be traced,” as recited by claim 1.

Contrary to the outstanding Office Action’s assertions Sanmugam fails to teach or suggest that signalling is being traced by a home system, in which the home system is part of a network element tracing signalling messages. Sanmugam merely states that “[t]he home system checks all signalling related to the activities specified for tracing.” (see Sanmugam, page 47, lines 19-21.) However, checking signalling is not the same as tracing signalling. In Sanmugam, activities are traced, and related signalling is checked; particularly, whenever subscriber tracing class is activated, a serving exchange continuously reports information on all mobile activities which have been selected for tracing, which information may then be sent to the home system as part of automatic roaming signalling. (see Sanmugam, page 46, lines 23-29.)

Therefore, the exchange in Sanmugam merely reports traced activities as a part of automatic roaming signalling, but signalling messages are not themselves traced. Therefore, Sanmugam fails to teach or suggest that signalling messages are traced at all.

The Office Action’s analysis is based on the erroneous conclusion that tracing of activities is the same as tracing signaling messages. In fact, one of ordinary skill in the art would recognize that the term “activity” refers to something performed by a subscriber, e.g., a call.

Conventionally, statistical information is stored relating to an activity, such as time of the activity, duration of the activity, location of the subscriber, etc. To the contrary, network

elements use signaling messages when they communicate with each other to provide and control different functions of the network, i.e., activities. For example, in a GSM system, several signaling messages must be sent to perform an activity such as establishing a call. Signaling messages are also used for mobility management. Signaling messages usually contain a large quantity of information, e.g., during a location update, signaling messages are used to transfer most of the subscriber information from a home location register to a visitor location register.

Thus, by capturing signaling messages, all information relating to establishment of a certain activity is received; this differs and is an improvement over merely compiling statistics on activities, in which case, the only information received is, that an activity took place or failed. For example, by merely storing information on activities, one of ordinary skill in the art cannot solve interoperability problems between two different operators. Information merely indicating that an activity has been attempted cannot be used to determine the reason why the attempt failed. That determination can be made only from signaling messages (relating to the activity in question).

Therefore, tracing of an activity (as in Sanmugam) is fundamentally different than tracing signaling messages (as recited in the claimed invention). Thus, Sanmugam fails to disclose, teach or suggest the claimed method of tracing signalling messages (independent claim 1), the telecommunication system (independent claim 7) and the network element (independent claim 10) that send the tracer a copy of a signalling message in response to the reception or transmission of a signalling message related to the subscriber to be traced.

The outstanding Office Action also incorrectly asserted that Sanmugam teaches MSCa reports the activity of M1 back to the home system which, under the Office Action's analysis, corresponding to copying a signalling message in response to the reception of a signalling message related to a mobile station and reporting to the home system.

The Office Action also took the position that, because Sanmugam discloses reporting an activity, it necessarily teaches copying a signalling message. However, from the perspective of one skilled in the art, "copying" of a signalling message would involve creating another signalling message that is a duplicate of the original signalling message. Yet, Sanmugam does not copy signalling messages; rather, Sanmugam merely teaches signalling messages that report traced activities. Further, if the Office Action's reasoning were taken to its logical conclusion, then copied signalling messages would never be reported in Sanmugam because reporting is a part of automatic roaming signalling. Therefore, if a

signalling message were copied, that copy would never be reported because the original signalling message was already reported.

For at least the above reasons, Applicant respectfully submits that Sanmugam fails to disclose, teach or suggest the claimed method including sending the tracer a copy of a signalling message in response to the reception or transmission of a signalling message related to the subscriber to be traced. Therefore, claim 1 is not anticipated by Sanmugam. Claims 2-5, which depend from claim 1, are patentable for the above reasons and for the additional features recited therein. Independent claims 7 and 10 recite features similar to claim 1 and are patentable for at least the above reasons and for the additional features recited therein. Claims 8 and 11 respectively depend from claims 7 and 10 and are patentable for the above reasons and for the additional features recited therein.

Claims 6, 9, and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sanmugam in view of Fletcher et al. (H1,921). Applicant traverses the rejection because Sanmugam and Fletcher, analyzed individually or in combination, fail to disclose, teach, or suggest all the features of the rejected claims.

Claims 6, 9, and 12 respectively depend from independent claims 1, 7, and 10 discussed above. As discussed, Sanmugam fails to teach all the features of claims 1, 7, and 10. Fletcher fails to remedy the above-identified deficiencies of Sanmugam because Fletcher merely teaches utilizing a MAP protocol interface on a generic wireless telecommunications system. Accordingly, for at least the above reasons and for the additional features recited therein, the Applicant respectfully submits that claims 6, 9, and 12 are patentable over Sanmugam in view of Fletcher.

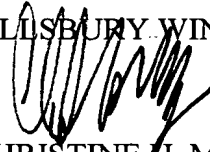
Therefore, all objections and rejections have been addressed. Therefore, Applicant requests issuance of a notice of allowance indicating the allowability of all pending claims. If anything further is necessary to place the application in condition for allowance, Applicant requests that the Examiner contact Applicant's undersigned representative at the telephone number listed below.

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Respectfully submitted,

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